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10/750,312	12/30/2003	Jessica R. DesNoyer	50623.313	1694

7590 09/03/2008  
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EXAMINER
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LAMB, BRENDA A

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.



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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/750,312  
Filing Date: December 30, 2003  
Appellant(s): DESNOYER ET AL.

\_\_\_\_\_  
Attorney James L. Reed  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 6/4/2008 appealing from the Office action mailed 12/12/2007.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

4846791	HATTLER ET AL	7-1989
5,389,106	TOWER	2-1995

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5,674,208	BERG ET AL	10-1997
4,762,128	ROSENBLUTH	8-1988

### **(9) Grounds of Rejection**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1 and 4-8 are rejected under 35 U.S.C. 103(a) as obvious over Hattler et al 4,846,791 in view of Berg et al 5,674,208.

Hattler et al shows as depicted in Figures 1-3 stent and a stent mandrel support supporting the catheter or stent comprising: a first member (protrusions arranged at one end of the mandrel) to contact a first end of the stent; a second member (protrusions arranged at the opposite end of the mandrel) to contact a second end of the stent; and a third member connecting the first member to the second member and extending through

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a longitudinal bore of the stent, the third member having at least three walls 34. Hattler et al shows the third member has a plurality of spikes and these spikes may contact the luminal surface. Hattler et al teaches the divider extends the entire length of the catheter or stent (see column 4 lines 64-66). Although Hattler et al explicitly fails to teach the stents includes struts as set forth in claims 1 and 4-5, it would have obvious to support any known stent or catheter tube assembly including that disclosed by Berg et al catheter or stent assembly with metal braids within the catheter or stent assembly acting as a plurality of struts or structural elements used to strengthen a structure by resisting longitudinal compression on the Hattler et al mandrel especially since Hattler infers his mandrel body is capable of accepting different configurations of stent or catheter tubes as inferred by Hattler et al disclosure of the catheter tube or stent at column 5 lines 10-15 and column 6 lines 45-52 for the obvious reason to expect similar end results – a catheter assembly capable of being inserted into a blood vessel. Hattler et al mandrel is capable of supporting the catheter or stent during application of coating thereon and includes walls 34 which substantially prevent a coating from being formed on a portion of the luminal surface of the catheter or stent since it teaches every positively claimed element of the apparatus. Note it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ 2d 1647 (1987). With respect to claims 7-8, Hattler et al fails to teach the cross-section of the third member is within the scope of claims. Hattler et al teaches the third member can have shapes other than triangular

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such as cross-shaped or star-shaped. Therefore, it would have been obvious to modify the mandrel in the Hattler et al stent and mandrel combination as set forth above by providing the third member with a shape within the scope of claims 7-8 since Hattler et al teaches the third member can have shapes other than triangular such as cross-shaped or star-shaped obviously to provide greater support of the catheter or stent. With respect to claim 6, Hattler et al fails to teach that the spikes do not contact the luminal of the stent or catheter. Hattler et al teaches that the geometry of the divider may or may not require protrusions to provide support necessary to prevent collapse of the lumen within the catheter or stent. Therefore, it would have been obvious to modify the Hattler et al mandrel such that the spikes of the third member do not have to touch or contact the luminal of the stent as long as the number of protrusions on the third member are sufficient to prevent collapse of the luminal within the catheter or stent for the obvious reason of providing a plurality of discrete support points – enable one to provide continued support for the catheter despite wear of the one of the discrete protrusions.

Claims 1 and 4-8 are rejected under 35 U.S.C. 103(a) as obvious over Hattler et al 4,846,791 in view of Tower 5,389,106.

Hattler et al shows as depicted in Figures 1-3 stent and a stent mandrel support supporting the catheter or stent comprising: a first member (protrusions arranged at one end of the mandrel) to contact a first end of the stent; a second member (protrusions arranged at the opposite end of the mandrel) to contact a second end of the stent; and a third member connecting the first member to the second member and extending through

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a longitudinal bore of the stent, the third member having at least three walls 34 and these wall 34 are shaped and/or sized to substantially prevent a coating from being formed on a luminal surface of the catheter or stent. Hattler et al shows the third member has a plurality of spikes and these spikes may contact the luminal surface. Hattler et al teaches the divider extends the entire length of the catheter or stent (see column 4 lines 64-66). Although Hattler et al explicitly fails to teach the stents includes struts as set forth in newly amended claims 1 and 4-5, it would have obvious to support any known stent or catheter tube assembly including that disclosed by Tower catheter and stent assembly with wires within the wire frame within the catheter and stent assembly acting as a plurality of struts or structural elements used to strengthen a structure by resisting longitudinal compression on the Hattler et al mandrel especially since Hattler infers his mandrel body is capable of accepting different configurations of stent or catheter tubes as inferred by Hattler et al disclosure of the catheter tube or stent at column 5 lines 10-15 and column 6 lines 45-52 for the obvious reason to expect similar end results – a catheter assembly capable of being inserted into a blood vessel. Hattler et al mandrel is capable of supporting the catheter or stent during application of coating thereon and includes walls 34 which substantially prevent a coating from being formed on a portion of the luminal surface of the catheter or stent since it teaches every positively claimed element of the apparatus. Note it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ 2d 1647 (1987). With respect to

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claims 7-8, Hattler et al fails to teach the cross-section of the third member is within the scope of claims. Hattler et al teaches the third member can have shapes other than triangular such as cross-shaped or star-shaped. Therefore, it would have been obvious to modify the mandrel in the Hattler et al stent and mandrel combination as set forth above by providing the third member with a shape within the scope of claims 7-8 since Hattler et al teaches the third member can have shapes other than triangular such as cross-shaped or star-shaped obviously to provide greater support of the catheter or stent. With respect to claim 6, Hattler et al fails to teach that the spikes do not contact the luminal of the stent or catheter. Hattler et al teaches that the geometry of the divider may or may not require protrusions to provide support necessary to prevent collapse of the lumen within the catheter or stent. Therefore it would have been obvious to modify the Hattler et al mandrel such that the spikes of the third member do not have to touch or contact the luminal of the stent as long as the number of protrusions on the third member are sufficient to prevent collapse of the luminal within the Tower catheter and stent assembly for the obvious reason of providing a plurality of discrete support points – enable one to provide continued support for the catheter despite wear of the one of the discrete protrusions.

Claims 9,11,13-14 and 19-25 are rejected under 35 U.S.C. 103(a) as obvious over Hattler et al 4,846,791 in view of Rosenbluth 4,762,128 and Applicant's Admitted Prior Art (see pages 1-2 and Figure 1 of the originally filed specification).

Hattler et al teaches in drawings which include Figures 12-13 a mandrel assembly comprising: a member to penetrate at least partially into a longitudinal bore of



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a hollow cylindrical member, the member including outwardly projecting integral walls disposed around the circumference of the mandrel, wherein each of the walls converge with its neighboring wall at an angle. Hattler et al teaches at column 5 lines 10-15 that the catheter tube supported on the mandrel is radially expandable. Hattler et al explicitly fails to teach the mandrel assembly in combination with a stent including a plurality of struts having abluminal and luminal surfaces in fluid communication through at least a pair of plurality of struts as set forth in newly amended claim 23. However, Rosenbluth teaches at column 10 line 53 to column 11 line 2 coating an expandable stent mounted on a mandrel and catheter assembly prior to its use. Therefore, it would have been obvious to arrange any conventional stent such as one taught by Applicant's Admitted Prior Art which has struts and structure within the scope of the claim on the Hattler et al mandrel and catheter assembly such that the member of the mandrel penetrates the longitudinal bore of the stent since Rosenbluth teaches mounting a stent on a catheter and mandrel assembly to enable one to coat the stent prior to its use. Thus claim 23 is obvious over the above cited references. With respect to claim 19, Hattler et al teaches as depicted in the drawings which includes Figure 16 the design of a mandrel and catheter assembly comprising: a member to penetrate at least partially into a longitudinal bore of a hollow cylindrical member, the member including 6 sides and each side wall surface is non-parallel with its neighboring side wall surface. Hattler et al explicitly fails to teach the stents includes struts and have structure within the scope of newly amended claim 19. However, it would have been obvious to arrange any conventional stent such as one taught by Applicant's Admitted Prior Art which has struts

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and structure within the scope of the claim on the Hattler et al mandrel and catheter assembly such that the member of the mandrel penetrates the longitudinal bore of the stent since Rosenbluth teaches mounting a stent on a catheter and mandrel assembly to enable one to coat the stent prior to its use. Thus claim 19 is obvious over the above cited references. With respect to claims 9, 11 and 13-14, Rosenbluth teaches the supporting the stent on a mandrel assembly and the length of the mandrel assembly relative to the length of the stent is within the scope of the claim. Hattler et al shows the mandrel is comprised of a member including integrally formed walls that have a shape and length within the scope of the claims (see Figures 12-13 and 16). Hattler et al teaches at column 5 lines 10-15 that the catheter tube or stent supported on the mandrel is radially expandable. Hattler et al explicitly fails to teach the stents includes struts as set forth in newly amended claims 9, 11 and 13-14. However, it would have been obvious to arrange any conventional stent including that disclosed by Applicant's Admitted Prior Art on the Hattler et al mandrel and catheter assembly especially since Rosenbluth teaches mounting a stent on a catheter and mandrel assembly to enable one to coat the stent prior to its use. With respect to claims 20-22 and 24-25, Hattler et al shows as depicted in Figures 1-3 a mandrel and catheter assembly comprising a member having a first end, a second end and at least three sides or walls 34 which extend between the first and second end and triangular in shape. Rosenbluth teaches the supporting a stent on a mandrel and catheter assembly. Rosenbluth shows in his Figures the length of the mandrel assembly relative to the length of the stent is within the scope of the claim. Hattler et al explicitly fails to teach the stents includes struts as

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set forth in newly amended claims 20-22 and 24-25. However, it would have obvious to arrange any conventional stent including that disclosed by Applicant's Admitted Prior Art on the Hattler et al mandrel and catheter assembly especially since Rosenbluth teaches mounting a stent on a catheter and mandrel assembly to enable one to coat the stent prior to its use.

#### **(10) Response to Argument**

Appellant's argument that if tube 10 of Hattler et al were replaced with a stent having abluminal surfaces and luminal surfaces would render the Hattler et al non-operable is found to be non-persuasive since it is not commensurate in scope with the rejection of claims 9, 11-14 and 19-25 as set forth in the last office action. It would have been obvious to arrange any conventional stent such as one taught by Applicant's Admitted Prior Art which has struts and structure within the scope of the claim and is radially expandable on the Hattler et al mandrel and catheter/stent assembly such that the recited assembly penetrates the longitudinal bore of the stent since Rosenbluth teaches mounting a radially expandable stent on a catheter/stent and mandrel assembly to enable one to coat the stent prior to its use.

Appellant's argument that replacing tube 10 with a stent with struts would be counterproductive in view of Hattler et al is found to be non-persuasive. The claims are open to stents with the term "comprising" which being comprised of structure in addition to struts such as tube 12 as set forth in Berg et al in which the struts/metal braids 15 are embedded therein and deformable tubular membrane 28 with wire sleeve or struts supported thereon as shown in the Figures of Tower. Although Hattler et al explicitly

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fails to teach the stents includes struts as set forth in claims 1 and 4-5, it would have been obvious to support any known stent or catheter tube assembly including that disclosed by Berg et al catheter or stent assembly with metal braids within the catheter or stent assembly acting as a plurality of struts or structural elements or that disclosed by Tower which includes wires within the wire frame within catheter or stent assembly acting as a plurality of struts or structural elements used to strengthen a structure by resisting longitudinal compression on the Hattler et al mandrel especially since Hattler infers his mandrel body is capable of accepting different configurations of stent or catheter tubes as inferred by Hattler et al disclosure of the catheter tube or stent at column 5 lines 10-15 and column 6 lines 45-52 for the obvious reason to expect similar end results – a catheter assembly capable of being inserted into a blood vessel. Further, the combination of the Hattler et al divider with Berg et al or Tower stent would enable one to create separate lumens within the recited stents for delivery of separate materials to the patient due to the tubular member or membrane of the Berg et al or Tower stents.

Appellant's argument that provides the Hattler et al divider with spikes which do not contact the luminal surface of the stent would have rendered the Hattler et al inoperable is found to be non-persuasive. Hattler et al teaches that the geometry of the divider may or may not require protrusions to contact the luminal of the stent to provide support necessary to prevent collapse of the lumen within the catheter or stent rather requires a minimum spacing between the spikes of the divider and luminal of the stent (see column 5 lines 25-44). Therefore, it would have been obvious to modify the Hattler et al mandrel such that the spikes of the third member do not have to touch or contact

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the luminal of the stent as long as the number of protrusions on the third member are sufficient to prevent collapse of the luminal within the catheter or stent for the obvious reason of providing a plurality of discrete support points – enable one to provide continued support for the catheter despite wear of the one of the discrete protrusions.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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